



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Re application of: Chung et al.

Application No. 10/713,869

Filed: November 14, 2003

Confirmation No. 1873

For: POLYIMIDE MEMBRANES

Examiner: ---

Art Unit: 1711

Attorney Reference No. 6565-67326-01/RJP

CERTIFICATE OF MAILING

I hereby certify that this paper and the documents referred to as being attached or enclosed herewith are being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: COMMISSIONER FOR PATENTS, P.O. BOX 1450, ALEXANDRIA, VA 22313-1450 on the date shown below.

Attorney
for Applicant(s)

Date Mailed May 10, 2004

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TRANSMITTAL LETTER

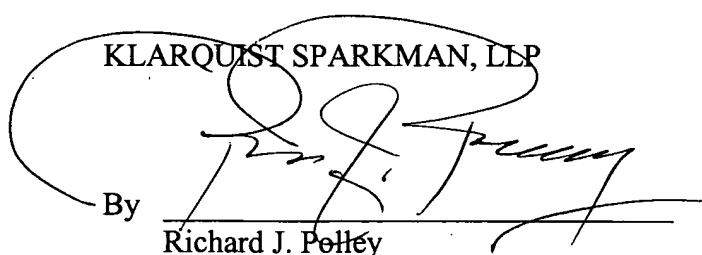
Enclosed for filing in the application referenced above are the following:

- ☒ Information Disclosure Statement
- ☒ Form 1449 and references cited thereon
- ☒ It is believed that no fees are required to file the accompanying Information Disclosure Statement. However, if a fee is required, the Director is authorized to charge such a fee to Deposit Account No. 02-4550. A copy of this sheet is enclosed.
- ☒ Please return the enclosed postcard to confirm that the items listed above have been received.

Respectfully submitted,

KLARQUIST SPARKMAN, LLP

By


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Client



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the application of:

Tai-Shung Neal Chung et al.

Serial No.: 10/713,869

Filed: November 14, 2003

For: POLYIMIDE MEMBRANES

Examiner:

Attorney Docket: 6565-67326/RJP

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450
U.S.A.

Dear Sir:

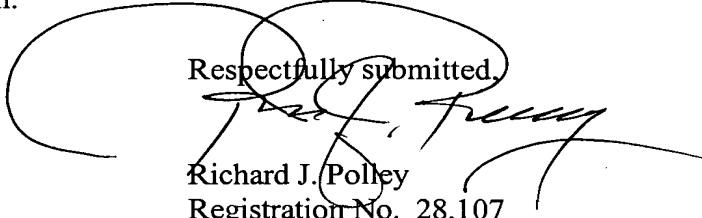
In accordance with the provisions of 37 CFR 1.56, Applicant hereby makes of record the references set out on the attached form PTO-1449.

A copy of each reference is enclosed.

No representation is made that a reference is "prior art" within the meaning of 35 U.S.C. §§ 102 and 103, and Applicants reserve the right, pursuant to 37 C.F.R. § 1.131 or otherwise, to establish otherwise. Moreover, Applicants do not represent that a reference has been thoroughly reviewed or that any relevance of any portion of a reference is intended.

It is respectfully requested that the information be expressly considered by the Examiner and that the references be made of record and appear among the "References Cited" on any patent to issue therefrom.

Respectfully submitted,




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Enclosures

FORM PTO-1449 INFORMATION DISCLOSURE CITATION IN AN APPLICATION (Use several sheets if necessary) 	Docket Number (Optional) 6565-67326RJP	Application Number 10/713,869
	Applicant Tai-Shung Neal Chung et al.	
	Filing Date November 14, 2003	Group Art Unit

U.S. PATENT DOCUMENTS						
EXAMINER INITIALS	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE

FOREIGN PATENT DOCUMENTS						
	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
						YES NO

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)	
	S. A. Stern, Polymers for the gas separation: the next decade, <i>J. Membr. Sci.</i> , 94 (1994) 1
	M. E. Rezac, B. Schoberl, Transport and thermal properties of poly(ether imide)/ acetylene-terminated monomer blends, <i>J. Membr. Sci.</i> 156 (1999) 211
	Y. Liu, R. Wang, T. S. Chung, Chemical cross-linking modification of polyimide membranes for gas separation, <i>J. Membr. Sci.</i> , 189 (2001) 231
	H. Kita, T. Inada, K. Tanaka, K. Okamoto, Effect of photocrosslinking on permeability and permselectivity of gases through benzophenone-containing polyimide, <i>J. Membr. Sci.</i> 87 (1994) 139
	Y. Liu, C. Y. Pan, M. X. Ding, J. P. Xu, Gas permeability and permselectivity of polyimides prepared from phenylenediamines with methyl substitution at the ortho position, <i>Polymer Int.</i> , 48 (1999) 832
	Y. Liu, M. X. Ding, J. P. Xu, Gas permeabilities and permselectivity of photochemically cross-linked polyimides, <i>J. Appl. Polym. Sci.</i> 58 (1995) 485
	C. Staudt-Bickel, W. J. Koros, Improvement of CO ₂ /CH ₄ separation characteristic of polyimides by chemical crosslinking, <i>J. Membr. Sci.</i> 155 (1999) 145
	M. Al-Masri, H. R. Kricheldorf, D. Fritsch, New polyimides for gas separation. 1. polyimides derived from substituted terphenylenes and 4,4'-(hexafluoroisopropylidene)diphthalic anhydride, <i>Macromolecules</i> , 32 (1999) 7853
	W. J. Koros, R. Mahajan, Pushing the limits on possibilities for large scale gas separation: which strategies?, <i>J. Membr. Sci.</i> 175 (2000) 181
	A. Bos, I. G. M. Punt, M. Wessling, H. Strathmann, Suppression of CO ₂ -plasticization by semiinterpenetrating polymer network formation, <i>J. Polym. Sci., Part B: Polym. Phys.</i> 36 (1998) 1547
EXAMINER:	DATE CONSIDERED:
EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	



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	Applicant Tai-Shung Neal Chung et al.	
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U.S. PATENT DOCUMENTS						
EXAMINER INITIALS	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	4,981,497	Jan. 1/91	Hayes	55	16	
	4,717,393	Jan. 5/88	Hayes	55	16	

FOREIGN PATENT DOCUMENTS							
	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION	
						YES	NO

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)		
		L.M. Robeson, Correlation of separation factor versus permeability for polymeric membranes, <i>J. Membr. Sci.</i> , 62 (1991) 165
		M. S. McCaig, D. R. Paul, Effect of UV cross-linking and physical aging on the gas permeability of thin glassy polyarylate films, <i>Polymer</i> 40 (1999) 7209
		Y. Liu, C. Y. Pan, M. X. Ding, J. P. Xu, Gas permeability and permselectivity of photochemically crosslinked copolyimides, <i>J. Appl. Polym. Sci.</i> 73 (1999) 521
		J. H. Fang, H. Kita, K. Okamoto, Hyperbranched polyimides for gas separation applications. 1. Synthesis and characterization, <i>Macromolecules</i> , 33 (2000) 4693
		W. J. Koros, G. K. Fleming, Membrane-based gas separation, <i>J. Membr. Sci.</i> , 83 (1993) 1
		A. Bos, I. G. M. Punt, M. Wessling, H. Strathmann, Plasticization-resistant glassy polyimide membranes for CO/CH separations, <i>Separation and Purif. Tech.</i> 14 (1998) 27
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